

IN THE CLAIMS

Claim 1 (previously presented): A method for the reduction of soluble aluminum species in an evaporated salt alkali metal halide brine containing up to 500 ppb aluminum species to provide a brine feedstock suitable for use in a chlor-alkali membrane cell process, said method comprising:

- (a) treating said brine with a magnesium salt in an amount to provide a Mg to Al molar ratio selected from 5-20 to 1 and at a Mg concentration of from 0.5 to 5 ppm, and sufficient alkali metal hydroxide to provide an excess alkalinity concentration of between 0.1-0.3 g/L alkali metal hydroxide to effect precipitation of a magnesium aluminum hydroxide complex; and
- (b) removing said complex to provide said brine feedstock.

Claim 2 (previously presented): A method as defined in claim 1 wherein said Mg to Al molar ratio is about 10:1 and said Mg concentration is from 1 to 5 ppm.

Claim 3 (original): A method as defined in claim 1 wherein said brine, said magnesium salt and said alkali metal hydroxide are subjected to vigorous mixing.

Claim 4 (original): A method as defined in claim 1 wherein said brine is treated with said magnesium salt prior to treatment with said alkali metal hydroxide.

Claim 5 (original): A method as defined in claim 1 wherein said magnesium salt and said alkali metal hydroxide are added to said brine as aqueous solutions.

Claim 6 (original): A method as defined in claim 1 wherein said magnesium salt is magnesium chloride and said alkali metal is sodium.

Claim 7 (previously presented): A method as defined in claim 1 wherein said treating is carried out at 50-70°C and the excess alkalinity is between 0.1 to 0.2 g/L alkali metal hydroxide and further comprising determining the concentration of aluminum species in said feedstock and adding magnesium salt to provide said Mg to Al ratio within said Mg concentration.

Claim 8 (canceled)

Claim 9 (currently amended): In a chlor-alkali membrane cell process employing a brine feedstock, the improvement wherein said feedstock is obtained by the method of claim 1.

Claim 10 (currently amended): A chlor-alkali membrane cell process according to claim 9 which is closed loop.